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**Serial Number:** 10/792, 256

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## PALM INTRANET

# **Inventor Information for 10/792256**

| Inventor Name                     | City                  | State/Country           |
|-----------------------------------|-----------------------|-------------------------|
| SCHROEPPEL, EDWARD A.             | SUGAR LAND            | TEXAS                   |
| KROLL, MARK W.                    | SIMI VALLEY           | CALIFORNIA              |
| Appln Info Contents Petition Info | Atty/Agent Info Conti | inuity Data Foreign Dat |
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# **PALM INTRANET**

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#### **Inventor Name Search Result**

Your Search was:

Last Name = KROLL First Name = MARK

| Application#    | Patent#       | Status | Date Filed | Title   | Inventor Name |
|-----------------|---------------|--------|------------|---|---------------|
| 09861230        | Not<br>Issued | 161    |            | Methods and devices for rapid delivery of secondary cardiac shocks            | KROLL, MARK   |
| 10039734        | 6795731       | 150    | 10/19/2001 | ANTI-TACHYCARDIA PACING<br>METHODS AND DEVICES                                | KROLL, MARK   |
| 10045494        | 6766196       | 150    | 10/19/2001 | ANTI-TACHYCARDIA PACING<br>METHODS AND DEVICES                                | KROLL, MARK   |
| 10045495        | 6907286       | 150    | 10/19/2001 | ANTI-TACHYCARDIA PACING<br>METHODS AND DEVICES                                | KROLL, MARK   |
| 10045570        | 6754531       | 150    | 10/19/2001 | ANTI-TACHYCARDIA PACING<br>METHODS AND DEVICES                                | KROLL, MARK   |
| <u>10067116</u> | 6731982       | 150    |            | ANTI-TACHYCARDIA PACING<br>METHODS AND DEVICES                                | KROLL, MARK   |
| <u>10468867</u> | Not<br>Issued | 30     | 08/22/2003 | Implantable device  | KROLL, MARK   |
| <u>10504895</u> | Not<br>Issued | 30     | 02/15/2005 | Management of implantable devices   | KROLL, MARK   |
| 10819641        | Not<br>Issued | 30     | 04/06/2004 | Partially implantable system for the electrical treatment of cancer           | KROLL, MARK   |
| 10832841        | 6968574       | 150    | 04/26/2004 | LIGHT SELECTIVE SPORTS<br>GARMENTS  | KROLL, MARK   |
| 10841105        | Not<br>Issued | 30     | 05/06/2004 | Anti-tachycardia pacing methods and devices                                   | KROLL, MARK   |
| 10881375        | Not<br>Issued | 30     | 06/29/2004 | Method and device for treating cancer with modified output electrical therapy | KROLL, MARK   |
| 10966722        | Not<br>Issued | 30     |            | Method for reforming a capacitor in an implantable medical device             | KROLL, MARK   |
| 11197791        | Not<br>Issued | 41     | 08/04/2005 | Light selective sports garments   | KROLL, MARK   |
| 11285756        | Not<br>Issued | 20     |            | Medium voltage therapy applications in treating cardiac arrest                | KROLL, MARK   |

| 60450869        | Not<br>Issued | 159 | 02/28/2003 | PSA-coated screenable articles   | KROLL, MARK       |
|-----------------|---------------|-----|------------|--|-------------------|
| 60630993        | Not<br>Issued | 159 |            | Medium voltage therapy applications in treating cardiac arrest   | KROLL, MARK       |
| 09503994        | 6432547       | 150 | 02/14/2000 | BREATHABLE FILM LAYER<br>COMPOSITIONS  | KROLL, MARK<br>S  |
| 08894500        | Not<br>Issued | 161 | 12/12/1997 | METHOD FOR PRODUCING A CONTINUOUS THERMOPLASTIC COATING AND ARTICLES CONSTRUCTED THEREFROM                       | KROLL, MARK<br>S  |
| 09527403        | 6583332       | 150 | 03/16/2000 | AN ARTICLE HAVING A<br>CONTINUOUS THERMOPLASTIC<br>COATING   | KROLL, MARK<br>S. |
| 09652470        | 6458877       | 150 | 08/31/2000 | COMPOSITIONS COMPRISING A<br>THERMOPLASTIC COMPONENT<br>AND SUPERABSORBENT<br>POLYMER                            | KROLL, MARK<br>S. |
| <u>09771764</u> | 6579915       | 150 | 01/29/2001 | RADIATION CURABLE ADHESIVE COMPOSITIONS COMPRISING BLOCK COPOLYMERS HAVING VINYL FUNCTIONALIZED POLYDIENE BLOCKS | KROLL, MARK<br>S. |
| 10425776        | 6926959       | 150 | 04/29/2003 | RADIATION CURABLE ADHESIVE COMPOSITIONS COMPRISING BLOCK COPOLYMERS HAVING VINYL FUNCTIONALIZED POLYDIENE BLOCKS | KROLL, MARK<br>S. |
| 10427888        | Not<br>Issued | 41  | 05/01/2003 | AN ARTICLE HAVING A<br>CONTINUOUS THERMOPLASTIC<br>COATING   | KROLL, MARK<br>S. |
| 11385173        | Not<br>Issued | 30  | 03/21/2006 | Method for producing a continuous thermoplastic coating and articles constructed therefrom                       | KROLL, MARK<br>S. |
| 60179263        | Not<br>Issued | 159 | 01/31/2000 | Radiation curable adhesive compositions comprising block copolymers having vinyl functionalized polydiene blocks | KROLL, MARK<br>S. |
| 07551182        | Not<br>Issued | 161 | 07/11/1990 | WATER BASED HEAT SEAL ADHESIVE COMPOSITION   | KROLL, MARK<br>S. |
| 08238678        | Not<br>Issued | 166 |            | BRANCHED COPOLYMER<br>PRESSURE SENSITIVE HOT<br>MELT ADHESIVE  | KROLL, MARK<br>S. |
| 08525238        | Not<br>Issued | 166 | 09/08/1995 | HIGH MOLECULAR WEIGHT S-<br>EB-S HOT MELT ADHESIVE   | KROLL, MARK<br>S. |

| I        |               |     | ı          |  |                   |
|----------|---------------|-----|------------|--|-------------------|
| 08562038 | 6087550       | 150 | 11         | NON-WOVEN APPLICATION<br>FOR WATER DISPERSABLE<br>COPOLYESTER  | KROLL, MARK<br>S. |
| 08615750 | Not<br>Issued | 168 | 03/14/1996 | ADHESIVES COMPRISING<br>OLEFIN POLYMERS  | KROLL, MARK<br>S. |
| 08705380 | 6120887       | 150 | 08/29/1996 | DISPOSABLE ARTICLES HAVING A CONTINUOS THERMOPLASTIC COATING COMPRISING A METALLOCENE POLYOLEFIN                                       | KROLL, MARK<br>S. |
| 08705578 | 5827252       | 150 | 08/29/1996 | METHOD FOR PRODUCING A CONTINUOUS THERMOPLASTIC COATING AND ARTICLES CONSTRUCTED THEREFROM   | KROLL, MARK<br>S. |
| 08798808 | 5863977       | 150 | 02/12/1997 | HIGH MOLECULAR WEIGHT S-<br>EB-S HOT MELT ADHESIVE   | KROLL, MARK<br>S. |
| 08851788 | 6448463       | 150 | 05/06/1997 | NON-WOVEN APPLICATION<br>FOR WATER DISPERSABLE<br>COPOLYESTER  | KROLL, MARK<br>S. |
| 08920748 | 5837802       | 250 | 08/29/1997 | FAST SETTING WATER<br>SENSITIVE POLYAMIDES<br>HAVING A HIGH TG   | KROLL, MARK<br>S. |
| 08934543 | Not<br>Issued | 161 | III I      | HIGH MOLECULAR WEIGHT S-<br>EB-S HOT MELT ADHESIVE   | KROLL, MARK<br>S. |
| 08948563 | 6166147       | 250 | 10/10/1997 | PRESSURE SENSITIVE<br>ADHESIVE COMPRISING<br>SATURATED BACKBONE<br>HAVING SIDE CHAINS  | KROLL, MARK<br>S. |
| 08973779 | Not<br>Issued | 41  | 01/08/1998 | ADHESIVES COMPRISING<br>OLEFIN POLYMERS  | KROLL, MARK<br>S. |
| 09132639 | Not<br>Issued | 168 | 08/11/1998 | ADHESIVES COMPRISING<br>OLEFIN POLYMERS  | KROLL, MARK<br>S. |
| 09195335 | 6103809       | 150 | 11/18/1998 | 09067035THERMOPLASTIC<br>COMPOSITIONS COMPRISING<br>CRYSTALLINE WATER<br>SOLUBLE POLYMERS AND<br>AMORPHOUS WATER<br>SENSITIVE POLYMERS | KROLL, MARK<br>S. |
| 09306265 | 6534572       | 150 | 05/06/1999 | COMPOSITIONS COMPRISING A<br>THERMOPLASTIC COMPONENT<br>AND SUPERABSORBENT<br>POLYMER  | S.                |
| 09415430 | 6288149       | 250 | 10/08/1999 | HOT MELT ADHESIVE<br>COMPOSITION INCLUDING<br>SURFACTANT   | KROLL, MARK<br>S. |
|          |               |     |            |  |                   |

| 60084582 | Not<br>Issued | 159 |            | LOW VISCOSITY THERMOPLASTIC COMPOSITIONS COMPRISING SUPERABSORBENT POLYMER   | KROLL, MARK<br>S. |
|----------|---------------|-----|------------|--|-------------------|
| 60103675 | Not<br>Issued | 159 | 10/09/1998 |  | KROLL, MARK<br>S. |
| 60121098 | Not<br>Issued | 159 | 02/22/1999 | BREATHABLE FILM LAYER<br>COMPOSITIONS  | KROLL, MARK<br>S. |
| 09524405 | 6366808       | 150 |            | Implantable device and method for the electrical treatment of cancer         | KROLL, MARK<br>W  |
| 09571980 | 6405922       | 150 | 05/15/2000 | KEYBOARD SIGNATURE<br>SECURITY SYSTEM  | KROLL, MARK<br>W  |
| 08339914 | 5540721       | 150 | 11/15/1994 | PROCESS AND APPARATUS FOR<br>DEFIBRILLATION SYSTEM<br>WITH A SMALL CAPACITOR | KROLL, MARK<br>W  |
| 08942820 | 6062474       | 150 | 10/02/1997 | ATM SIGNATURE SECURITY<br>SYSTEM   | KROLL, MARK<br>W  |

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| US<br>20060122681<br>A1 | US-<br>PGPUB | 20060608 | 13 | Automatic capture pacing lead  |  | 607/123    | 607/121                                  | Kroll; Mark<br>W. et al.             |
|-------------------------|--------------|----------|----|--|--|------------|--|--------------------------------------|
| US<br>20060100494<br>A1 | US-<br>PGPUB | 20060511 |    | System and method for monitoring blood glucose levels using an implantable medical device                                    |  | 600/365    | 600/508;<br>607/22                       | Kroll; Mark<br>W.                    |
| US<br>20050284412<br>A1 | US-<br>PGPUB | 20051229 |    | Domestic animal telephone  |  | 119/719    |  | Kroll, Mark<br>W.                    |
| US<br>20050261743<br>A1 | US-<br>PGPUB | 20051124 |    | System and method for automated fluid monitoring   |  | 607/8      |  | Kroll, Mark<br>W.                    |
| US<br>20050229425<br>A1 | US-<br>PGPUB | 20051020 |    | Ambulatory hairdryer   |  | 34/283     | 34/99                                    | Kroll, Mollie<br>B. et al.           |
| US<br>20050197676<br>A1 | US-<br>PGPUB | 20050908 |    | Electrical cardiac output forcer   |  | 607/17     |  | Kroll, Kai et al.                    |
| US<br>20050197673<br>A1 | US-<br>PGPUB | 20050908 |    | Left heart implantable cardiac stimulation system with clot prevention and method  |  | 607/9      |  | Kroll, Mark<br>W.                    |
| US<br>20050168681<br>A1 | US-<br>PGPUB | 20050804 |    | Tan-thru glasses   |  | 351/44     |  | Kroll, Mark<br>W. et al.             |
| US<br>20050085862<br>A1 | US-<br>PGPUB | 20050421 |    | Implantable cardiac stimulation device including an output circuit that provides arbitrarily shaped defibrillation waveforms |  | 607/5      |  | Moulder, J.<br>Christopher<br>et al. |
| US<br>20050072429<br>A1 | US-<br>PGPUB | 20050407 |    | Breathing gas<br>therapeutic method and<br>apparatus   |  | 128/205.27 | 128/202.12;<br>128/204.18;<br>128/205.25 | Kroll, Mark<br>W.                    |
| US<br>20050055900<br>A1 | US-<br>PGPUB | 20050317 |    | Toddler stair safety<br>system   |  | 52/182     |  | Kroll, Lori<br>C. et al.             |
| US<br>20050004507<br>A1 | US-<br>PGPUB | 20050106 |    | Method and device for treating cancer with electrical therapy in conjunction with chemotherapeutic agents and radiation      |  | 604/20     |  | Schroeppel,<br>Edward A.<br>et al.   |

|                         |              |          | therapy   |           |   |                                    |
|-------------------------|--------------|----------|---|-----------|---|------------------------------------|
| US<br>20040254618<br>A1 | US-<br>PGPUB | 20041216 | Implantable device and method for the electrical treatment of cancer  | 607/74    |   | Schroeppel,<br>Edward A.<br>et al. |
| US<br>20040186521<br>A1 | US-<br>PGPUB | 20040923 | Methods and apparatus for treating fibrillation and creating defibrillation waveforms                                   | 607/5     |   | Rubin, Leo et al.                  |
| US<br>20040103553<br>A1 | US-<br>PGPUB | 20040603 | Ambulatory hairdryer  | 34/96     | 34/97   | Kroll, Mollie<br>Beth et al.       |
| US<br>20040088012<br>A1 | US-<br>PGPUB | 20040506 | Implantable stimulation device with isolating system for minimizing magnetic induction                                  | 607/9     |   | Kroll, Mark<br>W. et al.           |
| US<br>20040078065<br>A1 | US-<br>PGPUB | 20040422 | System and method for monitoring blood glucose levels using an implantable medical device                               | 607/60    |   | Kroll, Mark<br>W                   |
| US<br>20040077962<br>A1 | US-<br>PGPUB | 20040422 | System and method for monitoring blood glucose levels using an implantable medical device                               | 600/513   |   | Kroll, Mark<br>W.                  |
| US<br>20040073261<br>A1 | US-<br>PGPUB | 20040415 | Methods and systems for treating ventricular fibrillation   | 607/5     |   | Kroll, Mark<br>W.                  |
| US<br>20040044373<br>A1 | US-<br>PGPUB | 20040304 | Method and apparatus for electrically forcing cardiac output in an arrhythmia patient                                   | 607/14    |   | Kroll, Kai et al.                  |
| US<br>20040039382<br>A1 | US-<br>PGPUB | 20040226 | Even temperature linear lesion ablation catheter  | 606/41    |   | Kroll, Mark<br>W. et al.           |
| US<br>20040018845<br>A1 | US-<br>PGPUB | 20040129 | Nuisance cell phone locator   | 455/456.1 | 455/404.2;<br>455/422.1;<br>455/427;<br>455/456.2 | Kroll, Mark<br>W.                  |
| US<br>20040010290<br>A1 | US-<br>PGPUB | 20040115 | Method and device for treating cancer with electrical therapy in conjunction with chemotherapeutic agents and radiation | 607/3     |   | Schroeppel,<br>Edward A.<br>et al. |

|                         | T            |          | therapy   |            |            |                                    |
|-------------------------|--------------|----------|---|------------|------------|------------------------------------|
| US<br>20040003815<br>A1 | US-<br>PGPUB | 20040108 | Altitude adjustment method and apparatus  | 128/206.21 | 128/205.11 | Kroll, Mark<br>W.                  |
| US<br>20030160588<br>A1 | US-<br>PGPUB | 20030828 | Implantable cardioverter defibrillator with switchable power source and patient warning system cardiac device | 320/103    |            | Kroll, Mark<br>W.                  |
| US<br>20030149453<br>A1 | US-<br>PGPUB | 20030807 | System and method for evaluating risk of mortality due to congestive heart failure using physiologic sensors  | 607/17     |            | Kroll, Mark<br>W. et al.           |
| US<br>20030149367<br>A1 | US-<br>PGPUB | 20030807 | System and method for evaluating risk of mortality due to congestive heart failure using physiologic sensors  | 600/483    |            | Kroll, Mark<br>W. et al.           |
| US<br>20030083719<br>A1 | US-<br>PGPUB | 20030501 | Implantable cardiac therapy device with dual chamber can to isolate high-frequency circuitry                  | 607/60     |            | Shankar,<br>Balakrishnan<br>et al. |
| US<br>20030069624<br>A1 | US-<br>PGPUB | 20030410 | XY selectable lead assembly   | 607/122    |            | Kroll, Mark<br>W.                  |
| US<br>20030050088<br>A1 | US-<br>PGPUB | 20030313 | Self defense cell phone with projectiles  | 455/550.1  |            | Kroll, Chase<br>R. et al.          |
| US<br>20030045910<br>A1 | US-<br>PGPUB | 20030306 | Pacing mode to reduce effects of orthostatic hypotension and syncope  | 607/23     |            | Sorensen,<br>Chris et al.          |
| US<br>20030040778<br>A1 | US-<br>PGPUB | 20030227 | Orientation of patient's position sensor using external field   | 607/17     |            | Kroll, Mark<br>W. et al.           |
| US<br>20030040776<br>A1 | US-<br>PGPUB | 20030227 | Detection of patient's position and activity status using 3D accelerometer-based position sensor              | 607/9      |            | Kroll, Mark<br>W. et al.           |
| US<br>20030003950<br>A1 | US-<br>PGPUB | 20030102 | Self defense cellular<br>telephone  | 455/557    |            | Kroll, Chase R. et al.             |

| US<br>20020157165<br>A1 | US-<br>PGPUB | 20021031 | Light selective sports garments   | 2/69    | 2/102;<br>2/227;<br>2/410;<br>2/DIG.3 | Kroll, Mark<br>W. et al.           |
|-------------------------|--------------|----------|---|---------|---------------------------------------|------------------------------------|
| US<br>20020156506<br>A1 | US-<br>PGPUB | 20021024 | Disposable defibrillator  | 607/5   |                                       | Kroll, Mark<br>W. et al.           |
| US<br>20020153416<br>A1 | US-<br>PGPUB | 20021024 | Magnetic card swipe signature security system   | 235/380 |                                       | Kroll, Mark<br>W.                  |
| US<br>20020124857<br>A1 | US-<br>PGPUB | 20020912 | Apparatus for imparting physician-determined shapes to implantable tubular devices                                      | 128/898 |                                       | Schroeppel,<br>Edward A.           |
| US<br>20020120318<br>A1 | US-<br>PGPUB | 20020829 | His bundle sensing device and associated method   | 607/149 |                                       | Kroll, Mark<br>W. et al.           |
| US<br>20020106059<br>A1 | US-<br>PGPUB | 20020808 | Public service answering point with automatic triage capability   | 379/45  |                                       | Kroll, Mark<br>W. et al.           |
| US<br>20020077676<br>A1 | US-<br>PGPUB | 20020620 | Implantable device and method for the electrical treatment of cancer  | 607/75  | 607/2                                 | Schroeppel,<br>Edward A.<br>et al. |
| US<br>20020072683<br>A1 | US-<br>PGPUB | 20020613 | Implantable medical device responsive to heart rate variability analysis  | 600/515 |                                       | Schroeppel,<br>Edward A.<br>et al. |
| US<br>20020068875<br>A1 | US-<br>PGPUB | 20020606 | Implantable medical device responsive to heart rate variability analysis  | 600/515 |                                       | Schroeppel,<br>Edward A.<br>et al. |
| US<br>20020035382<br>A1 | US-<br>PGPUB | 20020321 | Methods and apparatus for treating fibrillation and creating defibrillation waveforms                                   | 607/5   |                                       | Rubin, Leo et al.                  |
| US<br>20020033023<br>A1 | US-<br>PGPUB | 20020321 | Nitrogen-based refrigerator crisper   | 62/78   |                                       | Kroll, Mark<br>W. et al.           |
| US<br>20020002389<br>A1 | US-<br>PGPUB | 20020103 | Cardiac stimulation<br>devices and methods for<br>measuring impedances<br>associated with the left<br>side of the heart | 607/8   |                                       | Bradley,<br>Kerry et al.           |
| US                      | US-          | 20011206 | Method and apparatus  | 607/28  |                                       | Kroll, Mark                        |

| 20010049543<br>A1       | PGPUB        |          | for biventricular stimulation and capture monitoring  |         |   | W.                               |
|-------------------------|--------------|----------|---|---------|---|----------------------------------|
| US<br>20010044645<br>A1 | US-<br>PGPUB | 20011122 | Temporary atrial cardioversion catheter   | 607/122 | 604/532   | Hofstad,<br>Michael L.<br>et al. |
| US<br>20010031992<br>A1 | US-<br>PGPUB | 20011018 | System and method of generating a high efficiency biphasic defibrillation waveform for use in an implantable cardioverter/defibrillator (ICD) | 607/5   |   | Fishler,<br>Matthew G.<br>et al. |
| US<br>20010013766<br>A1 | US-<br>PGPUB | 20010816 | Thermal battery emergency system  | 320/104 |   | Kroll, Mark<br>W. et al.         |
| US<br>20010007325<br>A1 | US-<br>PGPUB | 20010712 | Wind and insect resistant picnic system   | 220/574 | 206/499;<br>206/813;<br>229/400;<br>229/407;<br>53/475;<br>53/540 | Kroll, Mark<br>W. et al.         |
| US 7062328<br>B1        | USPAT        | 20060613 | System and method for providing improved specificity for automatic mode switching within an implantable medical device                        | 607/27  |   | Levine; Paul<br>A. et al.        |
| US 7043301<br>B1        | USPAT        | 20060509 | Implantable cardiac stimulation system providing high output far-field pacing and method  | 607/9   | 607/17;<br>607/25;<br>607/4                                       | Kroll; Mark<br>W. et al.         |
| US 7029443<br>B2        | USPAT        | 20060418 | System and method for monitoring blood glucose levels using an implantable medical device   | 600/365 | 600/513;<br>607/22  | Kroll; Mark<br>W.                |
| US 7024243<br>B1        | USPAT        | 20060404 | System and methods for preventing, detecting, and terminating pacemaker mediated tachycardia in biventricular implantable cardiac             | 607/14  | 600/518   | Bornzin;<br>Gene A. et<br>al.    |

|                  |       |          | stimulation device   |            |                   |                                 |
|------------------|-------|----------|--|------------|-------------------|---------------------------------|
| US 7020521<br>B1 | USPAT | 20060328 | Methods and apparatus for detecting and/or monitoring heart failure  | 607/14     |                   | Brewer;<br>James E. et<br>al.   |
| US 7016720<br>B2 | USPAT | 20060321 | System and method for monitoring blood glucose levels using an implantable medical device                        | 600/513    | 600/365           | Kroll; Mark<br>W.               |
| US 7010358<br>B1 | USPAT | 20060307 | Single lead system for high voltage CHF device   | 607/122    |                   | Kroll; Mark<br>W. et al.        |
| US 7010346<br>B1 | USPAT | 20060307 | Implantable medical device having atrial tachyarrhythmia prevention therapy                                      | 607/14     |                   | Schloss;<br>Harold C. et<br>al. |
| US 7006867<br>B1 | USPAT | 20060228 | Methods and apparatus for overdrive pacing multiple atrial sites using an implantable cardiac stimulation device | 607/14     | 607/17            | Kroll; Mark<br>W.               |
| US 7006347<br>B1 | USPAT | 20060228 | Low deformation electrolytic capacitor   | 361/503    | 361/508;<br>607/5 | Kroll; Mark<br>W. et al.        |
| US 7003348<br>B1 | USPAT | 20060221 | Monitoring cardiac geometry for diagnostics and therapy  | 607/17     | 600/508           | Brewer;<br>James E. et<br>al.   |
| US 6997180<br>B2 | USPAT | 20060214 | Breathing gas therapeutic method and apparatus   | 128/202.12 | 128/205.11        | Kroll; Mark<br>W.               |
| US 6993379<br>B1 | USPAT | 20060131 | System and method for emulating a surface EKG using an implantable cardiac stimulation device                    | 600/510    | 600/509           | Kroll; Mark<br>W. et al.        |
| US 6987999<br>B1 | USPAT | 20060117 | Implantable defibrillator with alternating counter electrode   | 607/5      |                   | Kroll; Mark<br>W.               |
| US 6980850<br>B1 | USPAT | 20051227 | System and method for emulating a surface EKG using an implantable cardiac stimulation device                    | 600/509    |                   | Kroll; Mark<br>W. et al.        |
| US 6964116<br>B2 | USPAT | 20051115 | Ambulatory hairdryer   | 34/96      | 2/174;<br>34/99   | Kroll;<br>Mollie B. et<br>al.   |

| US 6961615<br>B2 | USPAT | 20051101 | System and method for evaluating risk of mortality due to congestive heart failure using physiologic sensors                             | 607/18     |  | Kroll; Mark<br>W. et al.         |
|------------------|-------|----------|--|------------|--|----------------------------------|
| US 6954669<br>B1 | USPAT | 20051011 | System and method of generating an optimal three-step defibrillation waveform for use in an implantable cardioverter/defibrillator (ICD) | 607/5      | 607/74                                   | Fishler;<br>Matthew G.<br>et al. |
| US 6937896<br>B1 | USPAT | 20050830 | Sympathetic nerve stimulator and/or pacemaker  | 607/9      |  | Kroll; Mark<br>W.                |
| US 6931278<br>B1 | USPAT | 20050816 | Implantable cardioverter defibrillator having fast action operation  | 607/5      |  | Kroll; Mark<br>W. et al.         |
| US 6928321<br>B1 | USPAT | 20050809 | Hypnosis augmented ICD   | 607/5      |  | Kroll; Mark<br>W.                |
| US 6904314<br>B1 | USPAT | 20050607 | Automatic defibrillation threshold tracking  | 607/7      |  | Brewer;<br>James E. et<br>al.    |
| US 6865420<br>B1 | USPAT | 20050308 | Cardiac stimulation<br>device for optimizing<br>cardiac output with<br>myocardial ischemia<br>protection                                 | 607/25     |  | Kroll; Mark<br>W.                |
| US 6862475<br>B1 | USPAT | 20050301 | Pediatric rate varying implantable cardiac device  | 607/9      |  | Kroll; Mark<br>W.                |
| US 6854844<br>B2 | USPAT | 20050215 | Tan-thru sunglasses  | 351/44     | 351/111                                  | Kroll; Mark<br>W. et al.         |
| US 6853859<br>B1 | USPAT | 20050208 | Electrical cardiac output forcer   | 607/5      | 607/17;<br>607/6                         | Kroll; Kai et al.                |
| US 6826427<br>B1 | USPAT | 20041130 | Methods and devices for inhibiting battery voltage delays in an implantable cardiac device   | 607/29     | 607/5                                    | Fayram;<br>Timothy A.<br>et al.  |
| US 6820619<br>B2 | USPAT | 20041123 | Altitude adjustment method and apparatus   | 128/205.11 | 128/204.22;<br>128/205.27;<br>128/205.28 | Kroll; Mark<br>W.                |
| US 6817520<br>B2 | USPAT | 20041116 | Magnetic card swipe signature security   | 235/380    | 235/379;<br>235/383;                     | Kroll; Mark<br>W.                |

|                  |       |          | system   |         | 235/449;<br>235/493                    |                          |
|------------------|-------|----------|--|---------|--|--------------------------|
| US 6813514<br>B1 | USPAT | 20041102 | System and method for emulating a surface EKG using an implantable cardiac stimulation device  | 600/509 |  | Kroll; Mark<br>W. et al. |
| US 6804557<br>B1 | USPAT | 20041012 | Battery monitoring system for an implantable medical device  | 607/29  |  | Kroll; Mark<br>W         |
| US 6780181<br>B2 | USPAT | 20040824 | Even temperature linear lesion ablation catheter   | 606/41  | 607/101;<br>607/102                    | Kroll; Mark<br>W. et al. |
| US 6775571<br>B1 | USPAT | 20040810 | Dynamic control of overdrive pacing based on degree of randomness within heart rate  | 607/9   |  | Kroll; Mark<br>W.        |
| US 6772007<br>B1 | USPAT | 20040803 | System and method of generating a low-pain multi-step defibrillation waveform for use in an implantable cardioverter/defibrillator (ICD) | 607/7   | 607/5;<br>607/63                       | Kroll; Mark<br>W.        |
| US 6766194<br>B1 | USPAT | 20040720 | Dynamic control of overdrive pacing based on degree of randomness within heart rate  | 607/9   | 607/4                                  | Kroll; Mark<br>W.        |
| US 6763266<br>B1 | USPAT | 20040713 | System and method of generating a low-pain multi-step defibrillation waveform for use in an implantable cardioverter/defibrillator (ICD) | 607/7   | 607/5;<br>607/63;<br>607/68;<br>607/74 | Kroll; Mark<br>W.        |
| US 6760625<br>B1 | USPAT | 20040706 | Battery monitoring system for an implantable medical device  | 607/29  |  | Kroll; Mark<br>W.        |
| US 6757561<br>B2 | USPAT | 20040629 | Methods and apparatus for treating fibrillation and creating defibrillation waveforms  | 607/5   | 607/7                                  | Rubin; Leo et al.        |

| US 6751503<br>B1 | USPAT | 20040615 | Methods and systems for treating patients with congestive heart failure (CHF)   | 607/18  |                   | Kroll; Mark<br>W.                  |
|------------------|-------|----------|---|---------|-------------------|------------------------------------|
| US 6748261<br>B1 | USPAT | 20040608 | Implantable cardiac stimulation device for and method of monitoring progression or regression of heart disease by monitoring interchamber conduction delays | 600/510 | 600/509;<br>607/9 | Kroll; Mark<br>W. et al.           |
| US 6745073<br>B1 | USPAT | 20040601 | System and method of generating a low-pain multi-step defibrillation waveform for use in an implantable cardioverter/defibrillator (ICD)                    | 607/7   | 607/5             | Kroll; Mark<br>W.                  |
| US 6744152<br>B2 | USPAT | 20040601 | Implantable cardioverter defibrillator with switchable power source and patient warning system cardiac device   | 307/66  | 320/103;<br>607/5 | Kroll; Mark<br>W.                  |
| US 6738663<br>B2 | USPAT | 20040518 | Implantable device and method for the electrical treatment of cancer  | 607/2   |                   | Schroeppel;<br>Edward A.<br>et al. |
| US 6714818<br>B1 | USPAT | 20040330 | System and method of generating an optimal three-step defibrillation waveform for use in an implantable cardioverter/defibrillator (ICD)                    | 607/5   | 607/72            | Fishler;<br>Matthew G.<br>et al.   |
| US 6694188<br>B1 | USPAT | 20040217 | Dynamic control of overdrive pacing based on degree of randomness within heart rate   | 607/14  |                   | Kroll; Mark<br>W.                  |
| US 6687542<br>B2 | USPAT | 20040203 | XY selectable lead assembly   | 607/9   |                   | Kroll; Mark<br>W.                  |
| US 6662047<br>B2 | USPAT | 20031209 | Pacing mode to reduce effects of orthostatic hypotension and syncope  | 607/18  | 607/23            | Sorensen;<br>Chris et al.          |
| US 6658292       | USPAT | 20031202 | Detection of patient's  | 607/19  |                   | Kroll; Mark                        |

| B2               |       |          | position and activity<br>status using 3D<br>accelerometer-based   |            |   | W. et al.                          |
|------------------|-------|----------|---|------------|---|------------------------------------|
| US 6645153<br>B2 | USPAT | 20031111 | position sensor  System and method for evaluating risk of mortality due to congestive heart failure using physiologic sensors | 600/481    | 600/300;<br>600/301;<br>600/508;<br>600/513;<br>600/529 | Kroll; Mark<br>W. et al.           |
| US 6628986<br>B1 | USPAT | 20030930 | System for predicting defibrillation threshold based on patient data  | 607/8      |   | Mouchawar;<br>Gabriel A. et<br>al. |
| US 6625493<br>B2 | USPAT | 20030923 | Orientation of patient's position sensor using external field   | 607/17     |   | Kroll; Mark<br>W. et al.           |
| US 6609027<br>B2 | USPAT | 20030819 | His Bundle sensing device and associated method   | 607/9      |   | Kroll; Mark<br>W. et al.           |
| US 6590534<br>B1 | USPAT | 20030708 | Electronic car locator  | 342/442    | 342/419;<br>342/457                                     | Kroll; Mark<br>W. et al.           |
| US 6580915<br>B1 | USPAT | 20030617 | Aircraft internal EMI detection and location  | 455/456.3  | 455/279.1;<br>455/431;<br>455/67.11;<br>455/67.13       | Kroll; Mark<br>W.                  |
| US 6580908<br>B1 | USPAT | 20030617 | Generic number cellular telephone   | 455/435.1  | 455/404.1;<br>455/409;<br>455/551                       | Kroll; Mark<br>W. et al.           |
| US 6578499<br>B2 | USPAT | 20030617 | Wind and insect resistant picnic system   | 108/90     |   | Kroll; Mark<br>W. et al.           |
| US 6571122<br>B2 | USPAT | 20030527 | Implantable medical device responsive to heart rate variability analysis  | 600/515    | 607/17  | Schroeppel;<br>Edward A.<br>et al. |
| US 6571121<br>B2 | USPAT | 20030527 | Implantable medical device responsive to heart rate variability analysis  | 600/515    | 607/17  | Schroeppel;<br>Edward A.<br>et al. |
| US 6567697<br>B1 | USPAT | 20030520 | External defibrillator with electrical CPR assist   | 607/5      |   | Kroll; Kai et al.                  |
| US 6561185<br>B1 | USPAT | 20030513 | Altitude adjustment method and apparatus  | 128/202.12 | 128/205.11  | Kroll; Mark<br>W.                  |
| US 6560974<br>B2 | USPAT | 20030513 | Nitrogen-based refrigerator crisper   | 62/78      | 62/179  | Kroll; Mark<br>W. et al.           |
| US 6560484       | USPAT | 20030506 | Method and apparatus  | 607/5      | 607/10;   | Kroll; Kai et                      |

| B1               |       |          | for electrically forcing cardiac output in an arrhythmia patient   |        | 607/4              | al.                             |
|------------------|-------|----------|--|--------|--------------------|---------------------------------|
| US 6549807<br>B1 | USPAT | 20030415 | Implantable cardioverter defibrillator having a rechargeable, fast-charging battery and method thereof   | 607/34 |                    | Kroll; Mark<br>W.               |
| US 6549806<br>B1 | USPAT | 20030415 | Implantable dual site cardiac stimulation device having independent automatic capture capability   | 607/27 |                    | Kroll, Mark<br>W.               |
| US 6539254<br>B1 | USPAT | 20030325 | Implantable ventricular cardioverter/defibrillator employing atrial pacing for preventing atrial fibrillation from ventricular cardioversion and defibrillation shocks | 607/4  | 607/14             | Kroll; Mark<br>W.               |
| US 6484056<br>B2 | USPAT | 20021119 | System and method of generating a high efficiency biphasic defibrillation waveform for use in an implantable cardioverter/defibrillator (ICD)                          | 607/5  | 607/74             | Fisher;<br>Matthew G.<br>et al. |
| US 6456876<br>B1 | USPAT | 20020924 | Dual-chamber implantable cardiac stimulation system and device with selectable arrhythmia termination electrode configurations and method                              | 607/4  | 607/63             | Kroll; Mark<br>W.               |
| US 6445950<br>B1 | USPAT | 20020903 | Implantable cardioverter/defibrillator employing shock delivery timing for preventing induced fibrillation   | 607/4  |                    | Kroll; Mark<br>W. et al.        |
| US 6445949<br>B1 | USPAT | 20020903 | Implantable cardioversion device with a self-adjusting threshold for therapy   | 607/4  | 600/518;<br>607/14 | Kroll; Mark<br>W.               |

|                  |       |          | selection  |           |  |                                    |
|------------------|-------|----------|--|-----------|--|------------------------------------|
| US 6442426<br>B1 | USPAT | 20020827 | Implantable ventricular cadioverter-defibrillator employing atrial pacing for preventing a trial fibrillation form ventricular cardioversion and defibrillation shocks | 607/4     | 607/14   | Kroll; Mark<br>W.                  |
| US 6438426<br>B2 | USPAT | 20020820 | Temporary atrial cardioversion catheter  | 607/125   | 607/122;<br>607/5                                      | Hofstad;<br>Michael L.<br>et al.   |
| US 6411844<br>B1 | USPAT | 20020625 | Fast recovery sensor amplifier circuit for implantable medical device  | 607/5     | 607/63   | Kroll; Mark<br>W et al.            |
| US 6408206<br>B1 | USPAT | 20020618 | Disposable external defibrillator  | 607/5     |  | Kroll; Mark<br>W. et al.           |
| US 6405922<br>B1 | USPAT | 20020618 | Keyboard signature security system   | 235/379   | 235/383  | Kroll; Mark<br>W.                  |
| US 6395038<br>B1 | USPAT | 20020528 | Apparatus for imparting physician-determined shapes to implantable tubular devices   | 623/23.64 | 623/1.11   | Schroeppel;<br>Edward A.           |
| US 6370234<br>B1 | USPAT | 20020409 | Public service answering point with automatic triage capability  | 379/45    | 379/265.01;<br>379/47;<br>379/49                       | Kroll; Mark<br>W.                  |
| US 6366808<br>B1 | USPAT | 20020402 | Implantable device and method for the electrical treatment of cancer   | 607/2     | 607/72   | Schroeppel;<br>Edward A.<br>et al. |
| US 6350168<br>B1 | USPAT | 20020226 | Light selective sport garments   | 441/111   | 2/108;<br>2/115;<br>2/67; 2/69;<br>441/106;<br>441/112 | Kroll; Mark<br>W. et al.           |
| US 6345200<br>B1 | USPAT | 20020205 | Implant guiding programmer for implantable cardioverter defibrillator  | 607/8     | 128/923  | Mouchawar;<br>Gabriel A. et<br>al. |
| US 6327498<br>B1 | USPAT | 20011204 | Implantable stimulation lead for use with an ICD device having automatic capture pacing features   | 607/4     | 600/509;<br>607/116;<br>607/122;<br>607/5              | Kroll; Mark<br>W.                  |
| US 6314319<br>B1 | USPAT | 20011106 | Method and apparatus for temporarily   | 607/5     |  | Kroll; Kai et al.                  |

|                  |       |          | electrically forcing cardiac output in a  |         |                               |                                  |
|------------------|-------|----------|---|---------|-------------------------------|----------------------------------|
|                  |       |          | tachyarrhythmia patient   |         |                               |                                  |
| US 6298266<br>B1 | USPAT | 20011002 | Methods and apparatus for treating fibrillation and creating defibrillation waveforms   | 607/5   |                               | Rubin; Leo et al.                |
| US 6292694<br>B1 | USPAT | 20010918 | Implantable medical device having atrial tachyarrhythmia prevention therapy   | 607/9   |                               | Schloss;<br>Harold C. et<br>al.  |
| US 6287306<br>B1 | USPAT | 20010911 | Even temperature linear lesion ablation catheter  | 606/41  | 606/42;<br>607/101;<br>607/99 | Kroll; Mark<br>W. et al.         |
| US 6282444<br>B1 | USPAT | 20010828 | Implantable device with electrical infection control  | 607/3   | 607/120                       | Kroll; Mark<br>W. et al.         |
| US 6233483<br>B1 | USPAT | 20010515 | System and method for generating a high efficiency biphasic defibrillation waveform for use in an implantable cardioverter/defibrillator (ICD). | 607/5   | 607/7;<br>607/74              | Causey, III; James D. et al.     |
| US 6219582<br>B1 | USPAT | 20010417 | Temporary atrial cardioversion catheter   | 607/122 |                               | Hofstad;<br>Michael L.<br>et al. |
| US 6208899<br>B1 | USPAT | 20010327 | Implantable cardioversion device with automatic filter control  | 607/9   |                               | Kroll; Mark<br>W.                |
| US 6198249<br>B1 | USPAT | 20010306 | Thermal booster battery system  | 320/104 | 320/103                       | Kroll; Mark W. et al.            |
| US 6185457<br>B1 | USPAT | 20010206 | Method and apparatus for electrically forcing cardiac output in an arrhythmia patient   | 607/5   |                               | Kroll; Kai et al.                |
| US 6169923<br>B1 | USPAT | 20010102 | Implantable cardioverter- defibrillator with automatic arrhythmia detection criteria adjustment   | 607/5   | 600/515                       | Kroll; Mark<br>W.                |
| US 6167306       | USPAT | 20001226 | Method and apparatus  | 607/5   |                               | Kroll; Kai et                    |

| A               |       |          | for electrically forcing cardiac output in an arrhythmia patient                   |           |   | al.                                |
|-----------------|-------|----------|--|-----------|---|------------------------------------|
| US 6144878<br>A | USPAT | 20001107 | Implantable medical device responsive to heart rate variability analysis           | 600/515   |   | Schroeppel;<br>Edward A.<br>et al. |
| US 6132426<br>A | USPAT | 20001017 | Temperature and current limited ablation catheter                                  | 606/41    | 606/29;<br>606/34;<br>607/101                             | Kroll; Mark<br>W.                  |
| US 6115597<br>A | USPAT | 20000905 | Disposal emergency cellular phone  | 455/404.1 |   | Kroll;<br>Braden W.<br>et al.      |
| US 6112118<br>A | USPAT | 20000829 | Implantable cardioverter defibrillator with slew rate limiting                     | 607/5     |   | Kroll; Mark<br>W. et al.           |
| US 6101414<br>A | USPAT | 20000808 | Method and apparatus for antitachycardia pacing with an optimal coupling interval  | 607/14    | 607/5   | Kroll; Mark<br>W.                  |
| US 6093982<br>A | USPAT | 20000725 | High voltage output array switching system   | 307/115   | 307/113;<br>307/125;<br>607/5                             | Kroll; Mark<br>W.                  |
| US 6062474<br>A | USPAT | 20000516 | ATM signature security system  | 235/382   | 235/379;<br>902/3;<br>902/5                               | Kroll; Mark<br>William             |
| US 6041255<br>A | USPAT | 20000321 | Disposable external defibrillator  | 607/5     |   | Kroll; Mark<br>W.                  |
| US 6035233<br>A | USPAT | 20000307 | Implantable medical device responsive to heart rate variability analysis           | 600/515   |   | Schroeppel;<br>Edward A.<br>et al. |
| US 6024764<br>A | USPAT | 20000215 | Apparatus for imparting physician-determined shapes to implantable tubular devices | 606/198   | 264/296;<br>604/530;<br>607/122;<br>623/23.64;<br>623/901 | Schroeppel;<br>Edward A.           |
| US 6007395<br>A | USPAT | 19991228 | Sun tanning life vest  | 441/106   | 441/112   | Kroll; Mark<br>W.                  |
| US 6002969<br>A | USPAT | 19991214 | Cardiac lead with shape-memory structure   | 607/122   |   | Machek;<br>James E. et<br>al.      |
| US 5991665<br>A | USPAT | 19991123 | Self-cooling<br>transcutaneous energy<br>transfer system for<br>battery powered    | 607/61    | 320/108;<br>607/33  | Wang;<br>Xintao et al.             |

|                 |       |          |    | implantable device  |            |                           |                                    |
|-----------------|-------|----------|----|---|------------|---------------------------|------------------------------------|
| US 5988161<br>A | USPAT | 19991123 |    | Altitude adjustment method and apparatus  | 128/202.12 | 128/203.25;<br>128/205.11 | Kroll; Mark<br>W.                  |
| US 5978703<br>A | USPAT | 19991102 |    | Method and apparatus for temporarily electrically forcing cardiac output in a tachyarrhythmia patient | 607/5      |                           | Kroll; Kai et al.                  |
| US 5957966<br>A | USPAT | 19990928 |    | Implantable cardiac lead with multiple shape memory polymer structures                                | 607/122    | 607/119;<br>607/128       | Schroeppel;<br>Edward A.<br>et al. |
| US 5957956<br>A | USPAT | 19990928 |    | Implantable cardioverter defibrillator having a smaller mass  | 607/5      |                           | Kroll; Mark<br>W. et al.           |
| US 5944746<br>A | USPAT | 19990831 |    | ICD with continuous regular testing of defibrillation lead status                                     | 607/27     | 607/8                     | Kroll; Mark<br>W.                  |
| US 5925068<br>A | USPAT | 19990720 |    | Method for determining an ICD replacment time   | 607/29     |                           | Kroll; Mark<br>W.                  |
| US 5925066<br>A | USPAT | 19990720 |    | Atrial arrythmia sensor with drug and electrical therapy control apparatus                            | 607/3      | 607/14                    | Kroll; Kai et al.                  |
| US 5913877<br>A | USPAT | 19990622 |    | Implantable defibrillator system for generating a biphasic waveform with enhanced phase transition    | 607/5      | 607/7                     | Kroll; Mark<br>W. et al.           |
| US 5908447<br>A | USPAT | 19990601 |    | Breakaway structure for body implantable medical device   | 607/126    |                           | Schroeppel;<br>Edward A.<br>et al. |
| US 5906633<br>A | USPAT | 19990525 | 18 | System for delivering rounded low pain therapeutic electrical waveforms to the heart                  | 607/5      | 128/908;<br>607/63        | Mouchawar;<br>Gabriel et al.       |
| US 5904705<br>A | USPAT | 19990518 |    | Automatic battery-<br>maintaining implantable<br>cardioverter defibrillator<br>and method for use     | 607/5      | 607/29                    | Kroll; Mark<br>W. et al.           |
| US 5899923<br>A | USPAT | 19990504 |    | Automatic capacitor maintenance system for an implantable cardioverter defibrillator                  | 607/5      |                           | Kroll; Mark<br>W. et al.           |
| US 5876429<br>A | USPAT | 19990302 |    | Methods and devices for in vivo repair of cardiac   | 607/115    | 128/898                   | Schroeppel;<br>Edward A.           |

|                 |       |          | stimulator leads  |         |                  |                                  |
|-----------------|-------|----------|---|---------|------------------|----------------------------------|
| US 5871532<br>A | USPAT | 19990216 | Epicardial lead for minimally invasive implantation   | 607/128 |                  | Schroeppel;<br>Edward A.         |
| US 5871510<br>A | USPAT | 19990216 | Method and apparatus for temporarily electrically forcing cardiac output as a backup for tachycardia patients | 607/14  |                  | Kroll; Kai et al.                |
| US 5871505<br>A | USPAT | 19990216 | Apparatus for generating biphasic waveforms in an implantable defibrillator                                   | 607/5   |                  | Adams;<br>Theodore P.<br>et al.  |
| US 5861006<br>A | USPAT | 19990119 | System for selectively reforming an ICD   | 607/5   |                  | Kroll; Mark<br>W.                |
| US 5836973<br>A | USPAT | 19981117 | Staged energy concentration for an implantable biomedical device  | 607/5   |                  | Kroll; Mark<br>W.                |
| US 5833712<br>A | USPAT | 19981110 | Implantable defibrillator system for generating a biphasic waveform   | 607/7   | 607/5;<br>607/74 | Kroll; Mark<br>W. et al.         |
| US 5830236<br>A | USPAT | 19981103 | System for delivering low pain therapeutic electrical waveforms to the heart                                  | 607/5   |                  | Mouchawar;<br>Gabriel et al.     |
| US 5827326<br>A | USPAT | 19981027 | Implantable cardioverter defibrillator having a smaller energy storage capacity                               | 607/5   |                  | Kroll; Mark<br>W. et al.         |
| US 5814075<br>A | USPAT | 19980929 | Method and apparatus for optimizing source allocation within an implantable cardioverter-defibrillator        | 607/5   | 607/34           | Kroll; Mark<br>W.                |
| US 5792203<br>A | USPAT | 19980811 | Universal programmable cardiac stimulation device   | 607/30  |                  | Schroeppel;<br>Edward A.         |
| US 5782884<br>A | USPAT | 19980721 | Rate responsive cardiac pacemaker with peak impedance detection for rate control                              | 607/17  |                  | Stotts;<br>Lawrence J.<br>et al. |
| US 5782883<br>A | USPAT | 19980721 | Suboptimal output device to manage  | 607/14  |                  | Kroll; Kai et al.                |

|                 |       |          | cardiac   |         |                               |                                    |
|-----------------|-------|----------|---|---------|-------------------------------|------------------------------------|
|                 |       |          | tachyarrhythmias  |         |                               |                                    |
| US 5776169<br>A | USPAT | 19980707 | Implantable cardiac stimulator for minimally invasive implantation  | 607/36  |                               | Schroeppel;<br>Edward A.           |
| US 5772690<br>A | USPAT | 19980630 | System having a surrogate defibrillation electrode for testing implantable cardioverter-defibrillators during implant | 607/7   |                               | Kroll; Mark<br>W.                  |
| US 5772689<br>A | USPAT | 19980630 | Implantable cardioverter-defibrillator with apical shock delivery   | 607/4   |                               | Kroll; Mark<br>W.                  |
| US 5769881<br>A | USPAT | 19980623 | Endocardial lead with multiple branches   | 607/123 | 600/375                       | Schroeppel;<br>Edward A.<br>et al. |
| US 5761019<br>A | USPAT | 19980602 | Medical current limiter   | 361/58  | 128/908;<br>361/93.9          | Kroll; Mark<br>W.                  |
| US 5759202<br>A | USPAT | 19980602 | Endocardial lead with lateral active fixation   | 607/126 | 600/375                       | Schroeppel;<br>Edward A.           |
| US 5755764<br>A | USPAT | 19980526 | Implantable cardiac stimulation catheter  | 607/122 | 607/127                       | Schroeppel;<br>Edward A.           |
| US 5749910<br>A | USPAT | 19980512 | Shield for implantable cardioverter defibrillator   | 607/36  |                               | Brumwell; Dennis A. et al.         |
| US 5749909<br>A | USPAT | 19980512 | Transcutaneous energy coupling using piezoelectric device   | 607/33  | 607/61                        | Schroeppel;<br>Edward A.<br>et al. |
| US 5749900<br>A | USPAT | 19980512 | Implantable medical device responsive to heart rate variability analysis  | 607/4   |                               | Schroeppel;<br>Edward A.<br>et al. |
| US 5741307<br>A | USPAT | 19980421 | Method for determining<br>an ICD replacement<br>time  | 607/5   | 607/29                        | Kroll; Mark<br>W.                  |
| US 5741303<br>A | USPAT | 19980421 | Electrode back-charging pre-treatment system for an implantable cardioverter defibrillator                            | 607/5   |                               | Kroll; Mark<br>W. et al.           |
| US 5738105<br>A | USPAT | 19980414 | Method and apparatus for sensing R-waves using both near field and far field sensing                                  | 600/510 | 600/374;<br>600/515;<br>607/5 | Kroll; Mark<br>W.                  |

|                 |       |          | simultaneously  |         |                             |                          |
|-----------------|-------|----------|---|---------|-----------------------------|--------------------------|
| US 5735878<br>A | USPAT | 19980407 | Implantable defibrillator having multiple pathways  | 607/5   |                             | Kroll; Mark<br>W. et al. |
| US 5735876<br>A | USPAT | 19980407 | Electrical cardiac output forcing method and apparatus for an atrial defibrillator  | 607/5   |                             | Kroll; Kai et al.        |
| US 5733309<br>A | USPAT | 19980331 | Method and apparatus for capacitive switching output for implantable cardioverter defibrillator                             | 607/5   |                             | Kroll; Mark<br>W. et al. |
| US 5718718<br>A | USPAT | 19980217 | Method and apparatus for polarity reversal of consecutive defibrillation countershocks having back biasing precharge pulses | 607/5   |                             | Kroll; Mark<br>W. et al. |
| US 5713944<br>A | USPAT | 19980203 | Cardioversion- defibrillation catheter lead having selectively exposable outer conductors                                   | 607/122 |                             | Kroll; Mark<br>W.        |
| US 5709709<br>A | USPAT | 19980120 | ICD with rate-<br>responsive pacing   | 607/4   | 607/122;<br>607/6;<br>607/8 | Kroll; Mark<br>W.        |
| US 5697953<br>A | USPAT | 19971216 | Implantable cardioverter defibrillator having a smaller displacement volume   | 607/5   |                             | Kroll; Mark<br>W. et al. |
| US 5690685<br>A | USPAT | 19971125 | Automatic battery-<br>maintaining implantable<br>cardioverter defibrillator<br>and method for use                           | 607/5   | 607/29;<br>607/34           | Kroll; Mark<br>W. et al. |
| US 5674248<br>A | USPAT | 19971007 | Staged energy concentration for an implantable biomedical device  | 607/5   |                             | Kroll; Mark<br>W. et al. |
| US 5662696<br>A | USPAT | 19970902 | One piece disposable threshold test can electrode for use with an implantable cardioverter defibrillator system             | 607/116 | 607/36;<br>607/37;<br>607/8 | Kroll; Mark<br>W. et al. |
| US 5662534<br>A | USPAT | 19970902 | Golf ball finding system  | 473/353 | 473/372                     | Kroll;<br>Braden W.      |

|                 |       |          |   |         |  | et al.                          |
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| US 5658319<br>A | USPAT | 19970819 | Implantable cardioverter defibrillator having a high voltage capacitor                    | 607/7   | 607/5  | Kroll; Mark<br>W.               |
| US 5649974<br>A | USPAT | 19970722 | Low profile defibrillation catheter   | 607/122 | 29/825   | Nelson;<br>Randall S. et<br>al. |
| US 5645573<br>A | USPAT | 19970708 | Optimal pulse defibrillator   | 607/7   |  | Kroll; Mark<br>W. et al.        |
| US 5645572<br>A | USPAT | 19970708 | Implantable cardioverter defibrillator with slew rate limiting                            | 607/5   | 128/901;<br>607/36   | Kroll; Mark<br>W. et al.        |
| US 5643323<br>A | USPAT | 19970701 | System and method inducing fibrillation using an implantable defibrillator                | 607/2   |  | Kroll; Mark<br>W. et al.        |
| US 5620469<br>A | USPAT | 19970415 | Stepped cardioversion system for an implantable cardioverter defibrillator                | 607/7   | 607/5  | Kroll; Mark<br>W.               |
| US 5620464<br>A | USPAT | 19970415 | System and method for delivering multiple closely spaced defibrillation pulses            | 607/5   |  | Kroll; Mark<br>W. et al.        |
| US 5607460<br>A | USPAT | 19970304 | Physician interface expert system for programming implantable arrythmia treatment devices | 607/30  | 607/59   | Kroll; Mark<br>W. et al.        |
| US 5591210<br>A | USPAT | 19970107 | Implantable defibrillation system and method for producing only short pulse waveforms     | 607/5   |  | Kroll; Mark<br>W. et al.        |
| US 5591209<br>A | USPAT | 19970107 | Implantable defibrillator system for generating an active biphasic waveform               | 607/5   | 607/74   | Kroll; Mark<br>W.               |
| US 5571144<br>A | USPAT | 19961105 | Method of verifying capture of the atrium by a cardiac stimulator                         | 607/28  | 607/26   | Schroeppel;<br>Edward A.        |
| US 5549933<br>A | USPAT | 19960827 | Process for painting snow   | 434/84  | 106/160.1;<br>427/136;<br>427/137;<br>427/212;<br>427/256; | Adams;<br>Theodore P.<br>et al. |

|                 |       |          |   |         | 427/427.3;<br>427/427.4 |                                 |
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| US 5549643<br>A | USPAT | 19960827 | Optimal pulse defibrillator   | 607/7   |                         | Kroll; Mark<br>W. et al.        |
| US 5540721<br>A | USPAT | 19960730 | Process and apparatus for defibrillation system with a small capacitor                            | 607/5   | 607/74                  | Kroll; Mark<br>W.               |
| US 5534015<br>A | USPAT | 19960709 | Method and apparatus for generating biphasic waveforms in an implantable defibrillator            | 607/7   | 607/5;<br>607/74        | Kroll; Mark<br>W. et al.        |
| US 5531782<br>A | USPAT | 19960702 | Implantable medical electrode with reduced number of conductors                                   | 607/122 |                         | Kroll; Mark<br>W. et al.        |
| US 5531770<br>A | USPAT | 19960702 | Device and method for determining defibrillation thresholds                                       | 607/8   |                         | Kroll; Mark<br>W. et al.        |
| US 5531766<br>A | USPAT | 19960702 | Implantable cardioverter defibrillator pulse generator kite-tail electrode system                 | 607/5   | 607/36;<br>607/9        | Kroll; Mark<br>W. et al.        |
| US 5531764<br>A | USPAT | 19960702 | Implantable defibrillator system and method having successive changeable defibrillation waveforms | 607/5   | 607/15                  | Adams;<br>Theodore P.<br>et al. |
| US 5527346<br>A | USPAT | 19960618 | Implantable cardioverter defibrillator employing polymer thin film capacitors                     | 607/5   |                         | Kroll; Mark<br>W.               |
| US 5522853<br>A | USPAT | 19960604 | Method and apparatus for progressive recruitment of cardiac fibrillation                          | 607/5   |                         | Kroll; Mark<br>W.               |
| US 5514160<br>A | USPAT | 19960507 | Implantable defibrillator for producing a rectangular-shaped defibrillation waveform              | 607/5   |                         | Kroll; Mark<br>W. et al.        |
| US 5507781<br>A | USPAT | 19960416 | Implantable defibrillator system with capacitor switching circuitry                               | 607/7   | 607/5;<br>607/74        | Kroll; Mark<br>W. et al.        |
| US 5458620<br>A | USPAT | 19951017 | Cardiac arrhythmia detection using interdependent multiple parameter settings                     | 607/5   | 128/925;<br>600/518     | Adams;<br>Theodore P.<br>et al. |

| US 5454839<br>A | USPAT | 19951003 | Low profile defibrillation catheter   | 607/123 |                              | Anderson;<br>Kenneth M.<br>et al. |
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| US 5449377<br>A | USPAT | 19950912 | Overcharged final countershock for an implantable cardioverter defibrillator and method                     | 607/7   |                              | Adams;<br>Theodore P.<br>et al.   |
| US 5447521<br>A | USPAT | 19950905 | Safety system for an implantable defibrillator  | 607/5   | 600/547;<br>607/37;<br>607/6 | Anderson;<br>Kenneth M.<br>et al. |
| US 5443485<br>A | USPAT | 19950822 | Apparatus and method for capture detection in a cardiac stimulator  | 607/28  |                              | Housworth;<br>Craig M. et<br>al.  |
| US 5441518<br>A | USPAT | 19950815 | Implantable cardioverter defibrillator system having independently controllable electrode discharge pathway | 607/5   |                              | Adams;<br>Theodore P.<br>et al.   |
| US 5439482<br>A | USPAT | 19950808 | Prophylactic implantable cardioverter-defibrillator   | 607/5   | 607/36                       | Adams;<br>Theodore P.<br>et al.   |
| US 5431693<br>A | USPAT | 19950711 | Method of verifying capture of the heart by a pacemaker   | 607/28  | 607/26                       | Schroeppel;<br>Edward A.          |
| US 5431687<br>A | USPAT | 19950711 | Impedance timed defibrillation system   | 607/8   |                              | Kroll; Mark<br>W.                 |
| US 5431686<br>A | USPAT | 19950711 | Method for optimal pulse defibrillation using an implantable defibrillator                                  | 607/7   | 607/6                        | Kroll; Mark<br>W. et al.          |
| US 5413592<br>A | USPAT | 19950509 | Cardiac pacemaker with automatic parameter adjustment   | 607/18  |                              | Schroeppel;<br>Edward A.          |
| US 5411526<br>A | USPAT | 19950502 | Improved implantable defibrillator system for producing true-voltage-pulse waveforms                        | 607/5   |                              | Kroll; Mark<br>W. et al.          |
| US 5407444<br>A | USPAT | 19950418 | Staged energy concentration for a defibrillator   | 607/5   | 320/103;<br>320/166          | Kroll; Mark<br>W.                 |
| US 5405363<br>A | USPAT | 19950411 | Implantable cardioverter defibrillator having a smaller displacement volume                                 | 607/5   | 607/36                       | Kroll; Mark<br>W. et al.          |
| US 5391186      | USPAT | 19950221 | Method and apparatus  | 607/5   |                              | Kroll; Mark                       |

| A               |       |          | for utilizing short tau capacitors in an implantable cardioverter   |         |         | W. et al.                         |
|-----------------|-------|----------|---|---------|---------|-----------------------------------|
| US 5391185<br>A | USPAT | 19950221 | defibrillator Atrial cardioverter with ventricular protection   | 607/4   |         | Kroll; Mark                       |
| US 5383907<br>A | USPAT | 19950124 | System and method for delivering multiple closely spaced defibrillation pulses                            | 607/5   |         | Kroll; Mark<br>W.                 |
| US 5376103<br>A | USPAT | 19941227 | Electrode system for implantable defibrillator  | 607/5   |         | Anderson;<br>Kenneth M.<br>et al. |
| US 5366487<br>A | USPAT | 19941122 | Fibrillation and tachycardia detection  | 607/5   | 600/518 | Adams;<br>Theodore P.<br>et al.   |
| US 5366485<br>A | USPAT | 19941122 | Apparatus for defibrillation pretreatment of a heart  | 607/5   |         | Kroll; Mark<br>W. et al.          |
| US 5366484<br>A | USPAT | 19941122 | Short-pulse cardioversion system for an implantable cardioverter defibrillator                            | 607/5   |         | Kroll; Mark<br>W.                 |
| US 5351687<br>A | USPAT | 19941004 | Method and apparatus for non-invasively determining a patient's susceptibility to ventricular arrhythmias | 600/409 |         | Kroll; Mark<br>W. et al.          |
| US 5342399<br>A | USPAT | 19940830 | Implantable defibrillator system having a small capacitance valve   | 607/5   |         | Kroll; Mark<br>W.                 |
| US 5336245<br>A | USPAT | 19940809 | Storage interrogation apparatus for cardiac data  | 607/32  | 128/904 | Adams Theodore P. et al.          |
| US 5334219<br>A | USPAT | 19940802 | Method and apparatus for separate-capacitor cardioversion   | 607/5   |         | Kroll; Mark<br>W.                 |
| US 5330509<br>A | USPAT | 19940719 | Method and apparatus for far-field tachycardia termination  | 607/14  |         | Kroll; Mark<br>W. et al.          |
| US 5325870<br>A | USPAT | 19940705 | Multiplexed defibrillation electrode apparatus  | 607/122 |         | Kroll; Mark<br>W. et al.          |
| US 5314448<br>A | USPAT | 19940524 | Process for defibrillation pretreatment of a heart  | 607/5   |         | Kroll; Mark<br>W. et al.          |

| US 5312443<br>A | USPAT | 19940517 | Arrhythmia-detection criteria process for a cardioverter/defibrillator  | 607/5   | 128/925;<br>600/518                 | Adams;<br>Theodore P.<br>et al.   |
|-----------------|-------|----------|---|---------|-------------------------------------|-----------------------------------|
| US 5306291<br>A | USPAT | 19940426 | Optimal energy steering for an implantable defibrillator  | 607/5   |                                     | Kroll; Mark<br>W. et al.          |
| US 5300110<br>A | USPAT | 19940405 | Dirk-based epicardial defibrillation electrode  | 607/130 |                                     | Latterell;<br>Scott T. et<br>al.  |
| US 5265623<br>A | USPAT | 19931130 | Optimized field defibrillation catheter   | 607/122 |                                     | Kroll; Mark<br>W. et al.          |
| US 5258906<br>A | USPAT | 19931102 | System for remotely authorizing operation of a device and for automatically generating an invoice based on device usage | 705/2   | 379/106.02;<br>379/93.12;<br>705/34 | Kroll; Mark<br>W. et al.          |
| US 5257634<br>A | USPAT | 19931102 | Low impedence defibrillation catheter electrode   | 607/122 | 607/128                             | Kroll; Mark<br>W.                 |
| US 5241960<br>A | USPAT | 19930907 | Defibrillator pulse generator   | 607/5   |                                     | Anderson;<br>Kenneth M.<br>et al. |
| US 5228437<br>A | USPAT | 19930720 | Cardiac pacemaker and method for detecting cardiac signals  | 607/18  | 607/19                              | Schroeppel;<br>Edward A.          |
| US 5199429<br>A | USPAT | 19930406 | Implantable defibrillator system employing capacitor switching networks   | 607/5   |                                     | Kroll; Mark<br>W. et al.          |
| US 5190052<br>A | USPAT | 19930302 | Pacer lead with bipolar electrode   | 607/123 | 600/375                             | Schroeppel;<br>Edward A.          |
| US 5188116<br>A | USPAT | 19930223 | Electrocardiographic method and device  | 600/509 | 600/516;<br>600/517                 | Pommrehn;<br>Mark R. et<br>al.    |
| US 5174303<br>A | USPAT | 19921229 | Pacer lead with replaceable sensor  | 607/122 | 600/364;<br>600/374                 | Schroeppel;<br>Edward A.          |
| US 5117834<br>A | USPAT | 19920602 | Method and apparatus for non-invasively determing a patients susceptibility to ventricular arrhythmias                  | 600/518 |                                     | Kroll; Mark<br>W. et al.          |
| US 4956877<br>A | USPAT | 19900911 | Optical fiber reflective signal modulation system   | 398/170 | 398/141;<br>398/168;<br>398/169     | Kroll; Mark<br>W. et al.          |
| US 4947859      | USPAT | 19900814 | Bio-acoustic signal   | 600/528 | 381/355;                            | Brewer;                           |

| A               |       |          | sensing device   |         | 381/364;<br>600/586   | James E. et al.                  |
|-----------------|-------|----------|--|---------|---|----------------------------------|
| US 4895152<br>A | USPAT | 19900123 | System for cardiac pacing  | 607/13  | 607/28  | Callaghan;<br>Frank J. et<br>al. |
| US 4890630<br>A | USPAT | 19900102 | Bio-electric noise cancellation system   | 600/508 | 128/902;<br>128/905   | Kroll; Mark<br>W. et al.         |
| US 4879760<br>A | USPAT | 19891107 | Optical fiber transmissive signal modulation system  | 398/168 | 340/870.29  | Kroll; Mark<br>W. et al.         |
| US 4858610<br>A | USPAT | 19890822 | Detection of cardiac evoked potentials   | 607/13  | 607/28;<br>607/30   | Callaghan;<br>Frank J. et<br>al. |
| US 4848352<br>A | USPAT | 19890718 | Method for cardiac pacing and sensing using combination of electrodes  | 600/374 | 607/122;<br>607/22  | Pohndorf;<br>Peter J. et al.     |
| US 4832608<br>A | USPAT | 19890523 | Electrode belt adapter   | 439/67  | 439/465;<br>600/390;<br>600/394                               | Kroll; Mark<br>W.                |
| US 4827933<br>A | USPAT | 19890509 | Apparatus and method for adjusting heart/pacer rate relative to cardiac pO.sub.2 obtain a required cardiac output                          | 607/22  |   | Koning;<br>Gerrit et al.         |
| US 4811156<br>A | USPAT | 19890307 | Medical current limiter  | 361/58  | 361/101;<br>600/509   | Kroll; Mark<br>W.                |
| US 4802481<br>A | USPAT | 19890207 | Apparatus for controlling pacing of a heart in response to changes in stroke volume  | 607/24  |   | Schroeppel;<br>Edward A.         |
| US 4775018<br>A | USPAT | 19881004 | Load cell assembly   | 177/134 | 177/211   | Kroll;<br>William P.<br>et al.   |
| US 4770177<br>A | USPAT | 19880913 | Apparatus and method for adjusting heart/pacer relative to changes in venous diameter during exercise to obtain a required cardiac output. | 607/17  | 600/483;<br>607/23  | Schroeppel;<br>Edward A.         |
| US 4769760<br>A | USPAT | 19880906 | Terrain biased dynamic multiple threshold synchronization method and apparatus   | 702/79  | 324/76.39;<br>324/76.44;<br>327/41;<br>340/825.2;<br>375/317; | Kroll; Mark<br>W. et al.         |

|                 |       |          |   |         | 375/371;<br>600/525   |                                |
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| US 4766902<br>A | USPAT | 19880830 | Automatic sensitivity control for cardiac pacer   | 607/9   |   | Schroeppel;<br>Edward A.       |
| US 4763660<br>A | USPAT | 19880816 | Flexible and disposable electrode belt device   | 600/391 | 439/77;<br>600/397;<br>607/149;<br>607/152                        | Kroll; Mark<br>W. et al.       |
| US 4744369<br>A | USPAT | 19880517 | Medical current limiting circuit  | 600/509 | 128/908;<br>323/312;<br>323/908;<br>327/313;<br>361/18;<br>361/58 | Kroll; Mark<br>W.              |
| US 4730619<br>A | USPAT | 19880315 | Apparatus and method for adjusting heart/pacer rate relative to ejection time to obtain a required cardiac output     | 607/23  | 607/17  | Koning;<br>Gerrit et al.       |
| US 4716887<br>A | USPAT | 19880105 | Apparatus and method for adjusting heart/pacer rate relative to cardiac pCO.sub.2 to obtain a required cardiac output | 607/24  | 600/353;<br>607/16;<br>607/22                                     | Koning;<br>Gerrit et al.       |
| US 4714121<br>A | USPAT | 19871222 | Wheel scale assembly  | 177/134 | 177/164;<br>177/255   | Kroll;<br>William P.<br>et al. |
| US 4708143<br>A | USPAT | 19871124 | Method for controlling pacing of a heart in response to changes in stroke volume                                      | 607/23  | 607/17  | Schroeppel;<br>Edward A.       |
| US 4690143<br>A | USPAT | 19870901 | Pacing lead with piezoelectric power generating means   | 607/5   |   | Schroeppel;<br>Edward A.       |
| US 4672977<br>A | USPAT | 19870616 | Lung sound cancellation method and apparatus  | 600/528 | 600/390;<br>600/586   | Kroll; Mark<br>W.              |
| US 4672976<br>A | USPAT | 19870616 | Heart sound sensor  | 600/528 | 381/364;<br>381/385;<br>600/586                                   | Kroll; Mark<br>W.              |
| US 4651740<br>A | USPAT | 19870324 | Implant and control apparatus and method employing at least one tuning fork   | 607/31  | 181/139;<br>367/191;<br>607/30                                    | Schroeppel;<br>Edward A.       |
| US 4628934<br>A | USPAT | 19861216 | Method and means of electrode selection for pacemaker with  | 607/27  |   | Pohndorf;<br>Peter J. et al.   |

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|                 |       |          |    | multielectrode leads  |   | _       |                              |                                  |
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| US 4600017<br>A | USPAT | 19860715 |    | Pacing lead with sensor   | ( | 607/122 | 600/488                      | Schroeppel;<br>Edward A.         |
| US 4590941<br>A | USPAT | 19860527 |    | Cardiac pacer with improved battery system, output circuitry, and emergency operation   | ( | 607/34  | 607/11;<br>607/29;<br>607/30 | Saulson;<br>Stanley H. et<br>al. |
| US 4566456<br>A | USPAT | 19860128 | 17 | Apparatus and method for adjusting heart/pacer rate relative to right ventricular systolic pressure to obtain a required cardiac output | ( | 607/23  | 600/488                      | Koning;<br>Gerrit et al.         |
| US 4545380<br>A | USPAT | 19851008 |    | Method and apparatus for setting and changing parameters or functions of an implanted device  | ( | 607/30  |                              | Schroeppel;<br>Edward A.         |
| US 4543955<br>A | USPAT | 19851001 |    | System for controlling body implantable action device   |   | 600/348 | 604/66;<br>607/30            | Schroeppel;<br>Edward A.         |